

Strategic Skills Initiative

Occupational & Skills Shortage Report Summary

Economic Growth Region 3 – Northeast Indiana

Excerpts from Shortage Report

- The vast majority of current employment growth is taking place in service sector industries where wages struggle to keep pace with self-sufficiency levels
- The health care delivery network is growing and generating some wealth for the region from beyond their borders...but it is facing a critical shortage of registered nurses

Key Industries: Health Care Delivery (Ambulatory Health Care & Hospitals); Advanced Manufacturing (Plastics & Rubber Products, Primary Metal Manufacturing, Fabricated Metal Product Manufacturing, Machinery Manufacturing, Transportation Equipment Manufacturing)

Key Occupations (based on top 5 shortage projections):

Registered Nurses: Assess patient health problems and needs, develop and implement nursing care plans, and maintain medical records. Administer nursing care to ill, injured, convalescent, or disabled patients. May advise patients on health maintenance and disease prevention or provide case management.

Computer Systems Analysts -- Analyze science, engineering, business, and all other data processing problems for application to electronic data processing systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and review computer system capabilities, workflow, and scheduling limitations. May analyze or recommend commercially available software. May supervise computer programmers.

Industrial Engineers -- Design, develop, test, and evaluate integrated systems for managing industrial production processes including human work factors, quality control, inventory control, logistics and material flow, cost analysis, and production coordination.

(Note that the following occupations were condensed in creating the hybrid occupation referred to as CNC-MIMM: CNC-Operators, Machinists, Industrial Machinery Mechanics and Maintenance)

Computer-Controlled Machine Tool Operators: Operate computer-controlled machines or robots to perform one or more machine functions on metal or plastic work pieces.

Industrial Machinery Mechanics: Repair, install, adjust, or maintain industrial production and processing machinery or refinery and pipeline distribution systems.

Machinists: Set up and operate a variety of machine tools to produce precision parts and instruments. Includes precision instrument makers who fabricate, modify, or repair mechanical instruments.

Maintenance and Repair Workers, General: Perform work involving the skills of two or more maintenance or craft occupations to keep machines, mechanical equipment, or the structure of an establishment in repair.

Maintenance Workers, Machinery: Lubricate machinery, change parts, or perform other routine machinery maintenance.

Net Calculation Table – Includes Demand, Supply & Migration

Occupation	Shortage Projection 2005 - 2007
Computer-Controlled Machine Operators/Machinists/Mechanics	490
Registered Nurses	304
Computer Systems Analysts	158
Industrial Engineers	75

Selected Skills Definitions

Active Learning — Understanding the implications of new information for both current and future problem-solving and decision-making.

Learning Strategies — Selecting and using training/instructional methods and procedures appropriate for the situation when learning or teaching new things.

Monitoring — Monitoring/Assessing performance of yourself, other individuals, or organizations to make improvements or take corrective action

Overlapping Critical Skills For Shortage Occupations with Associated Wage

Skill	Assoc. Wage	CMC-MIMM	Registered Nurses	Systems Analysts	Industrial Engineers
Judgment/Decision Making	\$54,916				
Complex Problem Solving	\$54,672				
Active Learning	\$49,895				
Critical Thinking	\$46,306				
Monitoring	\$45,081				
Coordination	\$43,726				
Time Management	\$40,391				
Reading Comprehension	\$40,282				
Troubleshooting	\$39,892				
Learning Strategies	\$39,419				
Equipment Selection	\$37,587				
Service Orientation	\$36,983				
Mathematics	\$35,620				
Quality Control Analysis	\$35,473				
Active Listening	\$34,148				
Operation Monitoring	\$33,281				
Considered a critical skill for this occupation					

Location of Shortages -- Not available/not included

Emerging Occupations

CNC-Operators, Machinists, Industrial Machinery Mechanics & Maintenance Workers, as noted above; Computer Systems Analysts (strong need/demand in various non-IT settings)

Significance/Impact:

- One industry expert stated: “Without these key staff (Registered Nurses), we will ship people out to other facilities for care. We will decrease our level of service, or perhaps close a specific facility if our global shortage is great enough.”
- Critical computer skills are key to manufacturing health and growth and are difficult to replace via technology, outsourcing or off-shoring